Motor & Equipment Manufacturers Association
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May 30, 2018

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

Re: ET Docket No. 13-49, Comments on Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band

Dear Ms. Dortch:

The Motor & Equipment Manufacturers Association (MEMA) submits this letter in response to the May 10, 2018 letter from Commissioners O'Reilly and Rosenworcel to Toyota Motor North America regarding the 5.9 GHz band designated for Dedicated Short-Range Communications (DSRC) devices.

About MEMA

MEMA represents vehicle suppliers that manufacture components and systems for use in passenger cars and heavy trucks providing original equipment to new vehicles as well as aftermarket parts to service and repair vehicles. Suppliers are the largest employers of manufacturing jobs in the U.S., directly employing over 871,000 Americans with a total employment impact of 4.2 million jobs.

Our members lead the way in developing advanced, transformative technologies that enable safer, smarter, and more efficient vehicles, all within a rapidly growing global marketplace with increased regulatory and consumer demands. Motor vehicle suppliers and their high-tech components contribute more than 77 percent of the value in today's vehicles.

DSRC Technology

As you are aware, DSRC is a critical safety technology that offers secure, reliable, and rapid transmissions enabling vehicle-to-vehicle (V2V) and vehicle-to-everything (V2X) signals and communications. DSRC technology allows vehicles to communicate with one another (location, speed, direction etc.) up to 10 times per second. The motor vehicle supplier industry has spent millions of dollars on research and development in reliance on the Commission's channel plan to meet the requirement for very low latency, stability, and reliability. In addition, the U.S. Department of Transportation, many state departments of transportation, and related agencies and stakeholders have all made significant research, infrastructure, and planning investments. All these endeavors are dedicated to a future that envisions a highly connected vehicle environment to enhance mobility.

Through low latency communications, DSRC provides 360-degree situational awareness for all road users that no other sensor technology can match. The technology provides

longer range information than on-vehicle sensors and can "see" around other vehicles and obstructions and do so in all weather conditions. By directly communicating with surrounding vehicles and infrastructure, it offers a degree of certainty that radar, lidar, and camera sensors cannot provide. DSRC can integrate seamlessly with other advanced driver assistance systems (ADAS) that utilize vehicle sensors and will provide essential information for automated vehicle controls and safety features. For new vehicles, fully integrated systems are envisioned to enhance and augment a vehicle's overall safety system. For vehicles currently in the fleet, aftermarket DSRC devices can be retrofitted on most older vehicles, greatly increasing the technology deployment rate, and further enhancing collision avoidance and safety.

As you know, DSRC technology has moved from research and testing to market deployment. General Motors, which launched DSRC on its Cadillac CTS model in 2017, just announced in June that Cadillac crossovers will have V2X communications technology by 2023. GM's goal is to eventually expand to all the models of the Cadillac brand. This past spring, Toyota announced that DSRC will be deployed on their vehicles in 2021.

As the FCC is aware, analysis from the National Highway Traffic Safety Administration (NHTSA) determined that V2V communications will address up to 80 percent of all non-impaired light vehicle accidents savings thousands of lives. NHTSA has a rulemaking pending to create a new federal motor vehicle safety standard (FMVSS) that will require all new vehicles to be equipped with DSRC technology. MEMA has long supported the goals and objectives of V2V communications and have urged NHTSA to move forward and finalize this overdue rulemaking.

Preserving the 5.9 GHz Bandwidth for DSRC

In February, MEMA met with FCC staff to discuss the research testing evaluating the potential for unlicensed operations in the 5.9 GHz band without causing harmful interference. MEMA remains concerned that the safety benefits of DSRC could be compromised if other devices either used or "shared" the channels in that band of the spectrum.

MEMA believes that any sharing protocol must work around current and planned deployments of DSRC applications. Furthermore, thorough testing must be done to determine that such a protocol would be safe before implementation. Sharing of the 5.9 GHz band should only be considered on a "not-to-interfere-with-DSRC" basis and must positively demonstrate that any unlicensed sharing of the band will not impede the safety functions of DSRC.

In addition, any sharing should not require re-channelization. Re-channelization of the 5.9 GHz band would essentially nullify the decades of research and development and diminish the investments already made by stakeholders under the current channelization. This will not only impact vehicle suppliers and vehicle manufacturers, but also governments, municipalities, and other transportation industry stakeholders. More importantly, re-channelization would set future traffic safety gains back by several years as other technologies would need to be developed, tested, validated, and deployed.

Conclusion

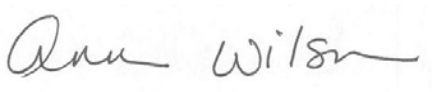
MEMA appreciates the FCC's commitment to finding the best method to deploy vehicle safety applications while working to meet demands for spectrum use.

Existing DSRC technology has been developed and is operational using a reserved band of the spectrum operating with specific channelization. Suppliers are the developers and producers of DSRC devices for their vehicle manufacturer customers. DSRC is now being deployed as a commitment to safety by two of the largest vehicle manufacturers in the United States. While the industry is ready and poised for greater deployment, regulatory uncertainty – such as waiting for the NHTSA regulation and the FCC decision on sharing – is hindering decision-making by vehicle manufacturers to push forward and deploy V2V DSRC in their products.

Therefore, MEMA urges FCC to preserve the 5.9 GHz spectrum designation and channelization features for DSRC – a critical safety technology.

Thank you for your consideration and we look forward to working with you on this issue. For questions or more information, please contact Leigh Merino, Senior Director of Regulatory Affairs at lmerino@mema.org or (202) 312-9249.

Sincerely,



Ann Wilson
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